

PATENT**IN THE UNITED STATES PATENT AND TRADEMARK OFFICE**

Applicant:	Robert M. Lund; Christopher D. Koch; Milton J. Johnson; Joel K. Lagerquist; Daniel R. Oelke; Jeffrey T. Kays; Joseph J. Knudsen; Steven J. Talus	Confirmation No.	3347
Serial No.:	09/873,933		
Filed:	June 4, 2001	Customer No.:	28863
Examiner:	Barry W. Taylor		
Group Art Unit:	2617		
Docket No.:	1034-017US01		
Title:	SYSTEM FOR CORRELATING A SUBSCRIBER UNIT WITH A PARTICULAR SUBSCRIBER IN A POINT-TO-MULTIPOINT NETWORK		

APPEAL BRIEF

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Commissioner for Patents
P.O. Box 1450
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Dear Sir:

This is an Appeal from the Office Action mailed August 12, 2008. Appellant filed a Notice of Appeal on November 12, 2008. The due date for this Appeal Brief has been extended one month to run through February 12, 2009.

Please charge Deposit Account No. 50-1778 in the amount of \$540.00 for Appellant's appeal brief fee, as required by 37 C.F.R. § 41.37(a)(2).

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REAL PARTY IN INTEREST

The real parties in interest are Calix Networks, Inc. of Petaluma, California, the assignee of record, as well as White Oak Global Advisors, LLC, of San Francisco, California, which has a recorded security interest in the present application and Silicon Valley Bank of San Francisco, California, which also has a recorded security interest in the present application.

RELATED APPEALS AND INTERFERENCES

This proceeding may be related to a currently-pending appeal in United States Patent Application Number 11/065,323, which is a divisional application of the present application.

STATUS OF CLAIMS

Claims 1-3, 37, 39-41, 43, 44 and 47-55 and 62-69 are on appeal in this case.

Claims 63, 67, 68 and 69 stand rejected under 35 U.S.C. § 112, first paragraph as failing to comply with the written description requirement.

Claims 1, 2, 37, 39-41, 43, 44 and 47-69 stand rejected under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. (US 6,002,746) in view of Dolin, Jr. et al. (US 5,420,572).

Claim 3 stands rejected under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. in view of Dolin, Jr. et al. and further in view of Kennedy et al. (US 6,163,594).

Claim 56-61 are not on appeal per Appellant's discretion.

Claims 38, 42 and 45 are withdrawn and are not on appeal.

Claims 4-36 and 46 are cancelled and are not on appeal.

STATUS OF AMENDMENTS

The claims on appeal are those submitted in the Amendment filed on April 28, 2008 in response to the Office Action mailed December 28, 2007. This Amendment was entered by the Examiner in conjunction with the Final Office Action mailed August 12, 2008.

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SUMMARY OF CLAIMED SUBJECT MATTER

The claims on appeal include four independent claims: claims 1, 49, 63 and 68. Claims 1, 49 and 63 are directed to methods for correlating a subscriber unit in a point-to-multipoint network with a geographic location; and claim 68 is directed to a point-to-multipoint network.¹ Claims 2, 3, 37, 39–41, 43, 44, 47, 48, 62 and 64 are dependent on independent claim 1; claims 50–55, 65 and 66 are dependent on independent claim 49; claim 67 is dependent on independent claim 63; and claim 69 is dependent on independent claim 68.²

Appellant's invention as recited by claim 1 is directed to a method for correlating a subscriber unit in a point-to-multipoint network with a geographic location.³ The method comprises prompting an installer to manually input a location code associated with a subscriber,⁴ the location code permitting identification of a geographic location of the subscriber.⁵ The method further comprises receiving the location code in the subscriber unit,⁶ and transmitting the location code and a subscriber unit identifier via the network from the subscriber unit to a central repository.⁷ In addition, the method comprises storing the location code and the subscriber unit identifier in the central repository to correlate the subscriber unit with the geographic location.⁸

Appellant's invention as recited by claim 49 is directed to a method comprising receiving a location code associated with a subscriber in a subscriber unit in a point-to-multipoint network.⁹ The location code permits identification of a geographic location of the subscriber.¹⁰ The method further comprises transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device for correlation of the subscriber unit with the geographic location.¹¹

Appellant's invention as recited by claim 63 is directed to a method for correlating a subscriber unit in a point-to-multipoint network with a geographic location.¹² The method

¹ See claims 1, 49, 56, 63 and 68.

² See claims 1–3, 37, 39–41, 43, 44 and 47–69.

³ See, e.g., Application, page 2, lines 9–14, page 7, lines 3–4 and FIG. 2.

⁴ See, e.g., Application, page 2, lines 15–16, page 6, lines 14–21 and FIG. 2.

⁵ See, e.g., Application, page 7, lines 3–4.

⁶ See, e.g., Application, page 2, line 16, page 6, line 22 to page 7, line 9 and FIG. 2.

⁷ See, e.g., Application, page 2, lines 16–17, page 6, lines 1–3, page 7, lines 10–16 and FIG. 2.

⁸ See, e.g., Application, page 2, lines 17–18, page 7, line 23 to page 8, line 3 and FIG. 2.

⁹ See, e.g., Application, page 2, line 16, page 6, line 22 to page 7, line 9 and FIG. 2.

¹⁰ See, e.g., Application, page 7, lines 3–4.

¹¹ See, e.g., Application, page 2, lines 16–17, page 6, lines 1–3, page 7, lines 10–16 and FIG. 2.

¹² See, e.g., Application, page 2, lines 9–14, page 7, lines 3–4 and FIG. 2.

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comprises prompting an installer to manually input a location code associated with a human subscriber into the subscriber unit,¹³ the location code permitting identification of a geographic location of the human subscriber.¹⁴ The subscriber unit is located at the geographic location of the human subscriber.¹⁵ The method further comprises receiving the location code in the subscriber unit,¹⁶ and transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network.¹⁷ In addition, the method comprises correlating the subscriber unit with the geographic location based on the location code and the subscriber unit identifier.¹⁸

Appellant's invention as recited by claim 68 is directed to a point-to-multipoint network.¹⁹ The point-to-multipoint network comprises a remote device, a first line connected to the remote device, a passive splitter connected to the first line opposite the remote device, a plurality of additional lines connected to the passive splitter opposite to the first line, and a plurality of subscriber units, each of the subscriber units connected to one of the additional lines opposite to the passive splitter.²⁰ Each one of the subscriber units sends a subscriber unit identifier associated with the one of the subscriber units and a location code associated with a subscriber using the one of the subscriber units to the remote device via one of the set of additional lines, the passive splitter and the first line.²¹ The location code permits identification of a geographic location of the subscriber using the one of the subscriber units.²² The remote device receives the subscriber unit identifiers and the location codes received from the subscriber units, and correlates the one of the subscriber units with the geographic location of the subscriber using the subscriber unit identifier and the location code received from the respective one of the subscriber units.²³

¹³ See, e.g., Application, page 2, lines 15–16, page 6, lines 14–21, FIG. 1, reference 30 and FIG. 2.

¹⁴ See, e.g., Application, page 7, lines 3–4.

¹⁵ See, e.g., Application, page 5, lines 13–14 and FIG. 1, references 30 and 50.

¹⁶ See, e.g., Application, page 2, line 16, page 6, line 22 to page 7, line 9 and FIG. 2.

¹⁷ See, e.g., Application, page 2, lines 16–17, page 6, lines 1–3, page 7, lines 10–16 and FIG. 2.

¹⁸ See, e.g., Application, page 2, lines 17–18, page 7, lines 10–16 and FIG. 2.

¹⁹ See, e.g., Application, page 4, lines 4–7 and FIG. 1.

²⁰ See, e.g., Application, page 4, lines 4–14 and FIG. 1, references, 41a, 50, 53, 54a, 54n, 60a, and 80.

²¹ See, e.g., Application, page 6, lines 1–3, page 7, lines 10–16, FIG. 1, references 30, 41a, 50 and 80 and FIG. 2.

²² See, e.g., Application, page 7, lines 3–4.

²³ See, e.g., Application, page 2, lines 17–18, page 7, lines 10–16, page 7, line 23 to page 8, line 3 and FIG. 2.

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GROUND OF REJECTION TO BE REVIEWED ON APPEAL

Appellant submits the following grounds of rejection to be reviewed on Appeal:

- (1) The first ground of rejection to be reviewed is the rejection of claims 63, 67, 68 and 69 under 35 U.S.C § 112, first paragraph as failing to comply with the written description requirement.
- (2) The second ground of rejection to be reviewed is the rejection of claims 1, 2, 37, 39–41, 43, 44 and 47–55 and 62–69 under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. (US 6,002,746) in view of Dolin, Jr. et al. (US 5,420,572).
- (3) The third ground of rejection to be reviewed is the rejection of claim 3 under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. in view of Dolin, Jr. et al. and further in view of Kennedy et al. (US 6,163,594).

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ARGUMENT

Appellant respectfully traverses the current rejections advanced in the Final Office Action, and requests reversal by the Board of Patent Appeals based on the arguments below. Appellant respectfully requests separate review of each set of claims argued under separate headings.

An invention that is anticipated by a prior art reference is not patentable. In order to support an anticipation rejection under 35 U.S.C. § 102(b), it is well established that a prior art reference must disclose each and every element of a claim. This well known rule of law is commonly referred to as the “all-elements rule.”²⁴ If a prior art reference fails to disclose any element of a claim, then rejection under 35 U.S.C. § 102(b) is improper.²⁵

In addition, an invention that would have been obvious to a person of ordinary skill at the time of the invention is not patentable.²⁶ The Supreme Court recently clarified the standard of non-obviousness under 35 U.S.C. § 103(a) in *KSR Int’l Co. v. Teleflex, Inc.*²⁷ As reiterated by the Supreme Court in *KSR International Co. v. Teleflex Inc.* (KSR),²⁸ the framework for the objective analysis for determining obviousness under 35 U.S.C. § 103 is stated in *Graham v. John Deere Co.*²⁹ Obviousness is a question of law based on underlying factual inquiries. The factual inquiries enunciated by the Court are as follows:

- (1) Determining the scope and content of the prior art;
- (2) Ascertaining the differences between the claimed invention and the prior art; and
- (3) Resolving the level of ordinary skill in the pertinent art.

In *KSR*, the Supreme Court explained that the Examiner must identify a logical reason why a person of ordinary skill in the art would have been led to make a modification or combination to arrive at the claimed invention. An invention composed of several elements is

²⁴ See *Hybritech Inc. v. Monoclonal Antibodies, Inc.*, 802 F.2d 1367, 231 USPQ 81 (CAFC 1986) (“it is axiomatic that for prior art to anticipate under 102 it has to meet every element of the claimed invention”).

²⁵ *Id.* See also *Lewmar Marine, Inc. v. Barient, Inc.* 827 F.2d 744, 3 USPQ2d 1766 (CAFC 1987); *In re Bond*, 910 F.2d 831, 15 USPQ2d 1566 (CAFC 1990); *C.R. Bard, Inc. v. MP Systems, Inc.*, 157 F.3d 1340, 48 USPQ2d 1225 (CAFC 1998); *Oney v. Ratliff*, 182 F.3d 893, 51 USPQ2d 1697 (CAFC 1999); *Apple Computer, Inc. v. Articulate Systems, Inc.*, 234 F.3d 14, 57 USPQ2d 1057 (CAFC 2000).

²⁶ 35 U.S.C. 103(a).

²⁷ See *KSR Int’l Co. v. Teleflex, Inc.*, 550 U.S. ____ (case 04-1350) (April 30, 2007).

²⁸ 550 U.S. ___, 82 USPQ2d 1385 (2007).

²⁹ 383 U.S. 1, 148 USPQ 459 (1966).

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not proved obvious merely by demonstrating that each of the elements was independently known.³⁰

Consistent with *KSR*, the Federal Circuit has stated that there must be “some rationale, articulation, or reasoned basis” to support the legal conclusion of obviousness.³¹ The reason for modification need not conform to the particular motivation or objective of the patent Appellant.³² However, there still must be some need or problem known in the art that would have provided a reason for combining elements in the manner claimed.³³

Furthermore, a basic premise of the obviousness analysis set forth in *KSR* is that the combination of prior art references must actually disclose the elements recited in the claims. Consistent with this premise, the Manual for Patenting Examining Procedure (MPEP) sets forth three basic requirements to an obviousness analysis as follows. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art, to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art reference (or references when combined) must teach or suggest all the claim limitations.³⁴

The *KSR* case clarified that the “suggestion or motivation” requirement is more broadly a requirement that the Examiner articulate a “rational reason” for the modification. However, the *KSR* case did not modify the basic requirement of the obviousness analysis that requires the Examiner to show that the prior art collectively teaches the elements of Appellant’s claims. Accordingly, if Appellant can show that the prior art lacks a teaching of one or more elements of the pending claims, the obviousness rejections must be reversed. In addition, if there is no *rational* reason a person of ordinary skill in the art would have arrived at the claimed invention in view of the prior art, the obviousness rejections must be reversed.

In addition to novelty and nonobviousness, the claimed invention must have adequate support in the disclosure as originally filed. The proscription against the introduction of new matter in a patent application serves to prevent an Appellant from adding information that goes

³⁰ *KSR*, Slip op. at 14.

³¹ *Alza Corp. v. Mylan Laboratories*, 80 USPQ2d 1001, 1005 (Fed. Cir. 2006) (citing *In re Kahn*, 78 USPQ2d 1329 (Fed. Cir. 2006)).

³² *KSR*, Slip op. at 16.

³³ *Id.*

³⁴ See MPEP 2143.

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beyond the subject matter originally filed.³⁵ While there is no *in haec verba* requirement, added claim limitations must be expressly, implicitly, or inherently supported in the originally filed disclosure.³⁶ Claims including limitations that do not meet this standard fail to comply with the written description requirement of 35 U.S.C. § 112, first paragraph. The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an Appellant's disclosure a description of the invention defined by the claims.³⁷

"[T]he 'essential goal' of the description of the invention requirement is to clearly convey the information that an Appellant has invented the subject matter which is claimed."³⁸ Consistent with this goal, the written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species.³⁹ As an example, in *In re Smythe*, the CCPA found that the phrase "air or other gas which is inert to the liquid" was sufficient to support a claim to "inert fluid media" because the description of the properties and functions of the air or other gas segmentizing medium would suggest to a person skilled in the art that appellant's invention includes the use of "inert fluid" broadly.⁴⁰

As represented by the decision of *In re Smythe*, it is not necessary that the specification as originally filed includes *in haec verba* recitation of a limitation used to represent a genus of a disclosed species. Instead, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention as now claimed.⁴¹

³⁵ 35 U.S.C. § 132 and 35 U.S.C. § 251.

³⁶ *In re Oda*, 443 F.2d 1200, 170 USPQ 268 (CCPA 1971).

³⁷ *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976).

³⁸ *In re Barker*, 559 F.2d 588, 592 n.4, 194 USPQ 470, 473 n.4 (CCPA 1977).

³⁹ MPEP 2163.05

⁴⁰ 480 F.2d 1376, 1383, 178 USPQ 279, 285 (CCPA 1973).

⁴¹ *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991).

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FIRST GROUND OF REJECTION UNDER APPEAL

In the Office Action, the Examiner rejected claims 63, 67, 68 and 69 under 35 U.S.C § 112, first paragraph as failing to comply with the written description requirement. Appellant respectfully traverses the rejection as Appellant's specification as filed conveys that Appellant had possession of the invention as recited in the claims.

GROUP 1 - (Claims 63 and 67)

Claim 63 recites, in part, "transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network..." In the rejection of claims 63 and 67 under 35 U.S.C § 112, first paragraph, the Examiner stated that Appellant's specification as filed does not describe the feature of "a remote device" as recited in claim 63 in such a way to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed.⁴² Appellant respectfully disagrees.

As represented by the decision of the CCPA in *In re Smythe*, it is not necessary that the specification as originally filed includes *in haec verba* recitation of a limitation used to represent a genus of a disclosed species.⁴³ Instead, the fundamental factual inquiry is whether the specification conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention as now claimed,⁴⁴ and the written description requirement for a claimed genus may be satisfied through sufficient description of a representative number of species.⁴⁵

Consistent with this standard, Appellant's specification as filed discloses numerous examples of remote devices that provide written description support for the term "remote device" in the context of claim 63. For example, Appellant's specification as filed discloses one embodiment in which a location code is placed in an IP package with a unique identifier for a specific Optical Network Unit (ONU) that is sent over a Passive Optical Network (PON) to correlate the location key with the specific ONU.⁴⁶ Appellant's specification further discloses that any of an Optical Line Terminator (OLT), a central office (CO), an Element Management

⁴² Final Office Action mailed August 12, 2008, item 1 on page 2.

⁴³ 480 F.2d 1376, 1383, 178 USPQ 279, 285 (CCPA 1973).

⁴⁴ *Vas-Cath, Inc. v. Mahurkar*, 935 F.2d 1555, 1563-64, 19 USPQ2d 1111, 1117 (Fed. Cir. 1991).

⁴⁵ MPEP 2163.05

⁴⁶ See, e.g., Application, page 7, lines 10-16.

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System (EMS), and a central router may store the correlation data, which includes the location key and identifier for the specific ONU sent over the PON.⁴⁷ Because these devices must receive such correlation data in order to store the correlation data, one of ordinary skill in the art would understand that the correlation data may be transmitted to any of these devices via the PON.

Appellant's specification as filed discloses multiple species of remote devices that receive correlation data transmitted over a point-to-multipoint network. This disclosure conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention as recited in claim 63 including the limitation of "transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network." Those skilled in the art understand that the OLT, CO, and EMS are remote devices relative to an ONU. Indeed, the very purpose of a PON is to support communication between remote devices, such as an OLT located at a CO and an ONU located at subscriber premises. Accordingly, one of ordinary skill in the art would readily understand, Appellant had possession of the invention including the feature of a remote device as recited in the claims. For these reasons, the Examiner rejection of claims 63 and 67 under 35 U.S.C § 112, first paragraph as failing to comply with the written description requirement is in error. Reversal of this rejection is requested.

GROUP 2 - (Claims 68 and 69)

In the rejection of claims 68 and 69 under 35 U.S.C § 112, first paragraph, the Examiner stated that the claims contain subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventors had possession of the claimed invention at the time the application was filed.⁴⁸ Specifically, the Examiner objected to the limitations of "a remote device" and "a passive splitter" as recited in claim 68. Appellant respectfully disagrees.

The examiner has the initial burden of presenting by a preponderance of evidence why a person skilled in the art would not recognize in an Appellant's disclosure a description of the invention defined by the claims.⁴⁹ However, with respect to the rejection of claims 68 and 69

⁴⁷ See, e.g., Application, page 7, line 23 to page 8, line 3 and Figure 1.

⁴⁸ Final Office Action mailed August 12, 2008, item 2 on pages 2-3.

⁴⁹ *In re Wertheim*, 541 F.2d 257, 263, 191 USPQ 90, 97 (CCPA 1976).

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under 35 U.S.C § 112, first paragraph, the Office Action fails to provide any reasoning that would logically support a written description rejection beyond mentioning the objected-to limitation.

As discussed with respect to the rejection of claims 63 and 67 under 35 U.S.C § 112, first paragraph as failing to comply with the written description requirement, Appellant's specification as filed clearly discloses a remote device. In addition, passive splitters are described at least at page 1, lines 21–24, and page 4, lines 4–14, as well as shown in FIG. 1, as items 60a and 60n of the application as filed. While Appellant's specification generally discusses passive optical splitters, the specification also states, "PONs are one example of point-to-multipoint wire line networks."⁵⁰ This passage illustrates that the inventive concepts provided in the application are applicable to other point-to-multipoint networks as well as PONs.

Appellant's specification as filed clearly conveys with reasonable clarity to those skilled in the art that, as of the filing date sought, Appellant was in possession of the invention as recited in claim 68 including the limitations of "a remote device" and "a passive splitter." For these reasons, the Examiner's rejection of claims 63 and 67 under 35 U.S.C § 112, first paragraph as failing to comply with the written description requirement is in error. Reversal of this rejection is requested.

In addition, in the comments regarding the rejection, the Examiner appears to object to claims 68 and 69 as being directed to a non-elected invention.⁵¹ Appellant disagrees with this objection as claims 68 and 69 are not limited to optical networks as asserted by the Examiner. For example, passive splitters may be used in copper wireline networks as well as optical networks. In addition, because the Examiner has already examined claims 68 and 69 in their present form, continued examination of claims 68 and 69 would not recreate a serious burden on the Examiner. For this reason, it would be improper to withdraw claims 68 and 69 at this time.⁵²

SECOND GROUND OF REJECTION UNDER APPEAL

In the Office Action, the Examiner rejected claims 1, 2, 37, 39–41, 43, 44 and 47–55 and 62–69 under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. in view of Dolin, Jr. et al.

⁵⁰ See, e.g., Application, page 1, lines 23–24.

⁵¹ Final Office Action mailed August 12, 2008, item 3 on pages 3–4.

⁵² MPEP § 803.

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Appellant respectfully traverses the rejection. The cited references fail to teach each and every feature of the claimed invention. In addition, the Examiner has failed to identify a rational reason why a person of ordinary skill in the art would have been led to make a modification or combination to arrive at the claimed invention as required to properly maintain the rejection under 35 U.S.C. § 103(a).

GROUP 3 - (Claims 1, 2, 37, 39-41, 43, 44 and 47)

Appellant's independent claim 1 is directed to a method for correlating a subscriber unit in a point-to-multipoint network with a geographic location. The method comprises prompting an installer to manually input a location code associated with a subscriber, the location code permitting identification of a geographic location of the subscriber. The method further comprises receiving the location code in the subscriber unit, and transmitting the location code and a subscriber unit identifier via the network from the subscriber unit to a central repository. In addition, the method comprises storing the location code and the subscriber unit identifier in the central repository to correlate the subscriber unit with the geographic location.

Examiner's arguments

In support of the rejection of claim 1, the Examiner cited Mulcahy et al. (at Col. 7, lines 64-67), as disclosing prompting an installer to manually input a location code associated with a subscriber unit, and receiving the location code in the subscriber unit. The Examiner apparently considered the terminal number in Mulcahy et al. to be a location code, as claimed. The Examiner further characterized Mulcahy et al. as disclosing transmitting a location code via a network to a central repository (citing Col. 7, lines 29-32), and storing the location code in the central repository to associate the location code with a physical port (citing Col. 8, lines 7-9).⁵³

The Examiner acknowledged that Mulcahy et al. fails to teach transmitting both a location code and a subscriber unit identifier to a central repository. Indeed, as discussed below, the transmission of a subscriber unit identifier in the Mulcahy et al. system would not serve any purpose. The Examiner nevertheless cited Dolin, Jr. et al. for such a

⁵³ Final Office Action mailed August 12, 2008, item 4 on page 4.

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teaching. In particular, the Examiner characterized Dolin, Jr. et al. as teaching a configuration device that allows communication of information identifying a network node and node type to the device so that a network can be easily configured. The Examiner further stated that Dolin, Jr. et al. uses a unique identifier for installation and maintenance of the network, and allows an installer to enter location codes so that the location, node identification and node type may be used for configuration of the network.⁵⁴

The Examiner concluded that it would have been obvious to modify the Mulcahy et al. system in view of Dolin, Jr. et al. in order to quickly identify nodes that may be malfunctioning or have not been configured. The Examiner did not specify the nature of the modification to Mulcahy et al. Appellant presumes that the modification may relate to the entry of both a location code in combination with a node identification, and transmission of the location code and node identification to a central repository.

The conclusion of obviousness advanced in the Office Action is erroneous for several reasons. The rejection seems to have overlooked several limitations expressed in the claims, and misinterpreted the scope and content of the Mulcahy et al. and Dolin, Jr. et al. references, as discussed in greater detail below. In summary, the terminal number described by Mulcahy et al. clearly is not a location code, as defined by Appellant's claims. In addition, the node identifier described by Dolin, Jr. et al. does not conform to the requirement of a subscriber unit identifier in the claims. Further, modification of the Mulcahy et al. system to transmit a node identifier per Dolin, Jr. et al. would serve no purpose in the Mulcahy et al. system. Because Mulcahy et al. describes a point-to-point system, information is directed to terminal equipment by simply routing the information to the terminating line associated with the terminal equipment. In Mulcahy et al., a subscriber unit identifier is not required to direct information to a subscriber.

In addition, the rejection ignores the actual language of the claims. Claim 1, for example, recites a method for correlation of a subscriber unit in a point-to-multipoint network with a geographic location of a subscriber. However, the Examiner's analysis did not even make reference to this requirement. Instead, the Examiner appeared to refer to language in a previous version of the claims, i.e., a physical port. The previous version of claim 1 has not been pending

⁵⁴ Final Office Action mailed August 12, 2008, item 4 on page 5.

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in the application since Appellant's amendment filed on October 17, 2005. Clearly, a terminal number does not provide an indication of a geographic location of a subscriber unit. In Mulcahy et al., a terminal number is simply the location of a line as it passes through a terminal of a node, and provides no indication of the geographic location of the line or the terminal, much less the geographic location of a subscriber.

Furthermore, when addressing these arguments, which were made by Appellant in previous responses, the Examiner simply stated that, "Applicant's do not argue or define what 'location code' or 'subscriber unit identifier' mean?"⁵⁵ Again, this statement ignores that claim 1 itself specifies that the location code identifies the geographic location of a subscriber. In many respects, the Examiner's analysis fails to address the actual limitations of the claims as currently pending.

These deficiencies are discussed in greater detail, *infra*.

A point-to-point network as disclosed by Mulcahy et al. contrasted with a point-to-multipoint network

When a subscriber unit is installed in a point-to-multipoint network, as claimed, there is no a priori knowledge as to the geographic location of the subscriber unit. Although a subscriber unit may have a unique identifier, the subscriber unit can be located at any one of the geographic locations served by the multipoint network. Consequently, there is a need to correlate a subscriber unit with a geographic location of a particular subscriber so that services can be provisioned for the particular subscriber. As described in Appellant's specification, a passive optical network (PON) is one example of a point-to-multipoint network.⁵⁶ In some embodiments, the subscriber unit may be an ONU in a PON.

Even though a subscriber unit may be known by the point-to-multipoint network, e.g., according to a subscriber unit identifier such as a serial number, the identity of the particular subscriber associated with the subscriber unit and geographic location of the subscriber remains unknown. In particular, multiple subscribers in a point-to-multipoint network are served by the same transmission line that operates as a shared communication medium. In other words,

⁵⁵ Final Office Action mailed August 12, 2008, item 6, b on page 13.

⁵⁶ See, e.g., Application, page 1, lines 23-24.

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without a point-to-point transmission medium, the identities of different subscribers can not be determined based solely on the identification of transmission lines that provide connections to the subscribers.

Different subscribers, situated at different geographic locations, may request different types or levels of service. In addition, different subscribers may each receive individual content, such as telephone service. Because many of the subscriber units are connected to the same transmission line, however, they cannot be readily distinguished based on a subscriber unit identifier alone. In accordance with the claimed invention, correlation of each subscriber unit with a subscriber's geographic location via a location code permits provisioning of services for a particular subscriber. Even though two subscriber units may be coupled to the same transmission line, e.g., an optical fiber link, it is possible to differentiate them by correlation of a subscriber unit identifier with a subscriber's geographic location. In a point-to-point network as described by Mulcahy et al., no such correlation is required because a separate, identifiable line is directly terminated with each user.

One main distinction between the disclosure of Mulcahy et al. and Appellant's claimed invention is that Mulcahy et al. applies to a telecommunications network that is fundamentally a point-to-point network. Because the Mulcahy et al. network is point-to-point, the geographic location of each endpoint is knowable in advance of the installation of the subscriber unit, such as a telephone, and can be maintained in a routing table. Because of the size and complexity of the routing table and the possibility of human error,⁵⁷ Mulcahy et al. describes a method for correcting information that is knowable in advance but may be inaccurately recorded.⁵⁸ Notably, this information is not a location code that permits identification of the geographic location of a subscriber as specified in Appellant's claims, but is instead a terminal number that locates a line within a junction box including multiple lines for different subscribers. Indeed, the location of a line in a junction box does not represent the geographic location of a subscriber, but merely the location of a single point along the line, and is not indicative of a geographic location, especially of a subscriber.

⁵⁷ Mulcahy et al., Col. 1, lines 25-30 ("such routing tables are often not accurate").

⁵⁸ See, e.g., Mulcahy et al., Abstract.

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Mulcahy et al. fails to disclose or suggest the requirements of claim 1.

In view of the differences discussed above, Mulcahy et al. fails to disclose or suggest the requirements of Appellant's claim 1. For example, Mulcahy et al. does not disclose prompting an installer to manually input a location code associated with a subscriber, particularly where the location code permits identification of a geographic location of the subscriber. On the contrary, Mulcahy et al. describes a technique for updating routing table information for telecommunication lines that have already been activated and established. In particular, Mulcahy et al. describes identification of terminals, nodes, and node types in a pre-established network, but makes no mention of subscribers associated with such equipment, nor location codes that permit identification of geographic locations associated with such subscribers, nor any need to use such location codes.

Mulcahy et al. is directed to techniques for recording the physical route of an active line through a local switch for which a telephone number already exists. The disclosure of Mulcahy et al. refers to an active terminal line, e.g., a telephone line, in which terminal equipment is already associated with a calling line identity, e.g., a telephone number. Because the line is already associated with a subscriber, correlation between a subscriber unit and a geographic location as recited in claim 1 is not necessary or useful in the telephone networks described by Mulcahy et al. In other words, a telephone number already exists in the Mulcahy et al. network and is physically correlated with the terminal equipment. Consequently, there is no need for correlation of a subscriber unit with the geographic location of a subscriber in the Mulcahy et al. network as recited in claim 1. One of ordinary skill in the art would immediately appreciate that such a correlation would be unnecessary and meaningless in the context of Mulcahy et al.

In the Office Action, the Examiner cited col. 7, lines 64-67, of Mulcahy et al. as disclosing receiving a location code in a subscriber unit.⁵⁹ In the cited passage, however, Mulcahy et al. states that an engineer may be prompted to enter a "node number" and a "terminal number." Neither the node number nor the terminal number discussed by Mulcahy et al. constitutes a location code that permits identification of a geographic location of a subscriber, as set forth in Appellant's claims. In Mulcahy et al., the node

⁵⁹ Final Office Action mailed August 12, 2008, item 4 on page 4.

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number is simply a number assigned to a node within an access network. The terminal number is a number assigned to a terminal within a node through which a line passes.

Mulcahy et al. states that each line passes through a pair of terminals in each node.⁶⁰ The "location code" specified by the claims is completely different from the node number or terminal number contemplated by Mulcahy et al. The node number and terminal number do not provide any information that would permit identification of a geographic location of a subscriber associated with a subscriber unit. Again, the terminal number in Mulcahy et al. merely identifies a terminal through which a terminal line passes, without regard to a geographic location of a subscriber. For example, the route of a terminal line could be physically moved from a first pair of terminals within the node to a second pair of terminals in the node without affecting the location of the subscriber associated with that terminal line. In this manner, the combination of a node number and a terminal number only identifies a node within a terminal, and not a subscriber or the geographic location of a subscriber.

Dolin, Jr. et al. fails to overcome the deficiencies of Mulcahy et al. with respect to Appellant's claim 1.

Dolin, Jr. et al. provides no teaching that would have suggested modification of Mulcahy et al. to arrive at the claimed invention. For example, Dolin, Jr. et al. does not teach entry of a location code that permits identification of a geographic location of a subscriber associated with a subscriber unit. According to Dolin, Jr. et al., a network node is characterized by a node_id, a node type, and a location code. The node_id described by Dolin, Jr. et al. is a unique identifier of the node, and is assigned at the time of manufacture. The node type is likewise assigned by the manufacturer. The location code is assigned, however, by a system installer.⁶¹

As in Mulcahy et al., the location code described by Dolin, Jr. et al. does not permit identification of a geographic location of a subscriber. In Dolin, Jr. et al., the location code assigns the node to a particular group or subnet.⁶² Accordingly, the location code described by

⁶⁰ Mulcahy et al., Col. 8, lines 1-3.

⁶¹ See, e.g., Dolin, Col. 11, lines 42-49.

⁶² See, e.g., Dolin, Col. 11, lines 42-49.

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Dolin, Jr. et al. does not relate to a geographic location, but rather a logical association. Dolin, Jr. et al. makes no mention of the use of a geographic location of a subscriber associated with a node, nor any need to resolve geographic location of a subscriber. Indeed, there appears to be no concept of nodes and associated subscribers in the Dolin, Jr. et al. reference. In other words, a node as described by Dolin, Jr. et al. can not reasonably be characterized as a subscriber unit. Even if Dolin, Jr. et al. were to contemplate a location code, as disclosed by Dolin, Jr. et al., a node communicates the node_id and node type to a handheld controller, and the handheld controller assigns the location code to the node. In contrast to Appellant's claims, the node does not transmit such information to a central repository or to a remote device via a network including the node, but instead via the handheld controller.⁶³

A subscriber unit identifier would have no purpose in the Mulcahy et al. system.

Moreover, even if a terminal number and node identifier were characterized as a location code and subscriber unit identifier, respectively, one of ordinary skill in the art still would not have considered modification of Mulcahy et al. in view of Dolin, Jr. et al. to transmit both a location code and subscriber unit identifier. On the contrary, one of ordinary skill in the art would have considered the concept of a subscriber unit identifier to be meaningless in the Mulcahy et al. system.

A subscriber unit identifier, as claimed, identifies a subscriber unit in a point-to-multipoint network in which multiple subscribers receive the same information via a common link. Using subscriber unit identifiers, information sent via the common link can be differentiated. In this manner, a subscriber unit can determine whether a particular unit of information is relevant to the associated subscriber. If the information is relevant, the subscriber unit accepts the information from the common link. If the information is not relevant, the subscriber unit ignores it. The correlation of a subscriber unit with a geographic location permits information to be differentiated for delivery to the appropriate subscriber.

Because Mulcahy et al. describes a point-to-point network, there is no need for a subscriber unit identifier. Moreover, modification of Mulcahy et al. to transmit both a location

⁶³ See, e.g., Dolin, Col. 12, lines 11-23.

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code and a subscriber unit identifier would make no sense. In the system of Mulcahy et al., information is directed to terminal equipment by simply routing the information to the particular terminating line associated with the terminal equipment. The terminating line forms a point-to-point connection and is not shared among multiple subscriber devices. For example, each terminating line can be identified with just a telephone number. No other information, such as a separate subscriber unit identifier, is required to ensure that terminal equipment only processes relevant information because all information sent via a terminal line is presumably relevant to the terminal equipment on that terminal line.

For this reason, Mulcahy et al. fails to disclose a subscriber unit identifier, and the system described in Mulcahy et al. has no purpose for a subscriber unit identifier. No prior art reference, including Dolin, Jr. et al. and the other prior art of record, would provide one of ordinary skill in the art with any apparent reason to modify the Mulcahy et al. system to include transmitting the location code and a subscriber unit identifier as recited by claim 1. Indeed, one of ordinary skill in the art would consciously avoid such a modification because it would be meaningless in the Mulcahy et al. system.

In view of the basic deficiencies discussed above, even if Mulcahy et al. were modified in view of Dolin, Jr. et al., the result would not conform to the requirements of the claims. In particular, neither Mulcahy et al. nor Dolin, Jr. et al. suggests prompting an installer to manually input a location code associated with a subscriber, wherein the location code permits identification of a geographic location of the subscriber, as set forth in claim 1.

In addition, Mulcahy et al. and Dolin, Jr. et al. fail to suggest transmitting both a location code and a subscriber unit identifier via a network to a central repository, and storing the subscriber unit identifier in the central repository to correlate the subscriber unit with a geographic location, as set forth in claim 1. Instead, correlation between a subscriber unit and a geographic location as recited in claim 1 is not necessary or useful in the telephone networks described by Mulcahy et al. because the telephone lines are already associated with subscribers.

For these reasons, the Mulcahy et al. and Dolin, Jr. et al. references, whether taken alone or in combination, do not support a *prima facie* case of obviousness under 35 U.S.C. § 103 with respect to claim 1. Likewise, the references also fail to support a rejection of dependent claims 2,

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37, 39-41, 43, 44 and 47 under 35 U.S.C. § 103. For these reasons, the rejection of claims 1, 2, 37, 39-41, 43, 44 and 47 is improper and should be reversed.

GROUP 4 - (Claim 48)

Dependent claim 48 is patentable for at least the reasons independent claim 1 is patentable. In addition, dependent claim 48 recites correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier.

As discussed above with respect to claim 1, Mulcahy et al. and Dolin, Jr. et al. fail to disclose or suggest storing the subscriber unit identifier in the central repository to correlate the subscriber unit with a geographic location. Claim 48 positively recites the step of correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier. Mulcahy et al. and Dolin, Jr. et al. also fail to disclose or suggest such a feature for similar reasons as discussed with respect to claim 1. For example, in the telephone networks described by Mulcahy et al., correlation between a subscriber unit and a geographic location is not necessary or useful because the telephone lines are already associated with subscribers.

The applied references fail to teach or suggest each and every element of independent claim 1 as well as elements recited in claim 48. For at least these reasons, the rejection of claim 48 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 5 - (Claim 62)

Dependent claim 62 is patentable for at least the reasons independent claim 1 is patentable. In addition, dependent claim 62 recites the feature of wherein the subscriber unit is located at the geographic location of the subscriber.

In the rejection of claim 62, the Examiner cited a portion of Mulcahy et al. that discloses sending a CLI (calling line identity) to a database. The Examiner concluded from this disclosure that Mulcahy et al. teaches that the subscriber unit is located at the subscriber location.⁶⁴ This conclusion is inconsistent with the rejection of claim 1.

Claim 1 specifies transmitting the location code and a subscriber unit identifier via the network from the subscriber unit to a central repository; in this case the Examiner's rejection of

⁶⁴ Final Office Action mailed August 12, 2008, item 4 on page 7, which cites Mulcahy, Col. 8, lines 7-9.

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claim 1 requires that the test apparatus disclosed by Mulcahy et al. be characterized as the subscriber unit recited in claim 1. This characterization is entirely inconsistent with the rejection of claim 62. For example, in the disclosure of Mulcahy et al. cited by the Office Action in the rejection of claim 62, the test apparatus is located at a node which is presumably not located at a subscriber's premises.

In addition, a CLI is not equivalent to a subscriber unit identifier as it does not identify a subscriber unit, but instead the line to which the test apparatus is connected. For example, the CLI would be the same both for a telephone at a customer's location as well as the test apparatus connected to a line at a node disclosed in Mulcahy et al.

The applied references fail to teach or suggest each and every element of independent claim 1 as well as elements recited in claim 62. For at least these reasons, the rejection of claim 62 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 6 - (Claim 64)

Dependent claim 64 is patentable for at least the reasons independent claim 1 is patentable. In addition, dependent claim 64 recites activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

In the rejection of claim 64, the Examiner cited Dolin, Jr. et al. as disclosing activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.⁶⁵ Notably, the Examiner failed to provide any rational reason one of ordinary skill in the art would have modified the disclosure of Mulcahy et al. to include such a feature.

In addition, one of ordinary skill in the art at the time of Appellant's invention would not have found it obvious to modify the system of Mulcahy et al. to include activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location at least because, in Mulcahy et al., the line is already active and services are already provisioned for the subscriber.

⁶⁵ Final Office Action mailed August 12, 2008, item 4 on page 7, which cites Dolin, Col. 10, line 62 to Col. 12, line 43.

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The applied references fail to teach or suggest each and every element of independent claim 1 as well as elements recited in claim 64. For at least these reasons, the rejection of claim 64 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 7 - (Claims 49-55)

Appellant's independent claim 49 is directed to a method comprising receiving a location code associated with a subscriber in a subscriber unit in a point-to-multipoint network, wherein the location code permits identification of a geographic location of the subscriber, and transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device for correlation of the subscriber unit with the geographic location.

As discussed above with respect to claim 1, Mulcahy et al. fails to disclose the combination of a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier, and the system described in Mulcahy et al. has no purpose for both a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier. In addition, no prior art reference, including Dolin, Jr. et al. and the other prior art of record, would provide one of ordinary skill in the art motivation to modify the Mulcahy et al. system to include transmitting the location code and a subscriber unit identifier as recited by claim 49. Indeed, one of ordinary skill in the art would have consciously avoided such a modification because it would be meaningless in the point-to-point network disclosed by Mulcahy et al.

Likewise, Mulcahy et al. and Dolin, Jr. et al. fail to suggest transmitting a location code and a subscriber unit identifier via a network to a remote device, such as central repository (as recited in claim 1) for correlation of the subscriber unit with the geographic location. Instead, correlation between a subscriber unit and a geographic location as recited in claim 49 is not necessary or useful in the telephone networks described by Mulcahy et al. because the telephone lines are already associated with subscribers.

For these reasons, the Mulcahy et al. and Dolin, Jr. et al. references, whether taken alone or in combination, do not support a *prima facie* case of obviousness under 35 U.S.C. § 103 with respect to claim 49. Likewise, the references also fail to support a rejection of dependent claims

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50–55 under 35 U.S.C. § 103. For these reasons, the rejection of claims 49–55 is improper and should be reversed.

GROUP 8 - (Claim 65)

Dependent claim 65 is patentable for at least the reasons independent claim 49 is patentable. In addition, dependent claim 65 recites correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier.

As discussed above with respect to claims 1 and 49, Mulcahy et al. and Dolin, Jr. et al. fail to disclose or suggest storing the subscriber unit identifier in the central repository to correlate the subscriber unit with a geographic location. Claim 65 positively recites the step of correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier. Mulcahy et al. and Dolin, Jr. et al. also fail to disclose or suggest such a feature for similar reasons as discussed with respect to claims 1 and 49. For example, in the telephone networks described by Mulcahy et al., correlation between a subscriber unit and a geographic location is not necessary or useful because the telephone lines are already associated with subscribers.

The applied references fail to teach or suggest each and every element of independent claim 49 as well as elements recited in claim 65. For at least these reasons, the rejection of claim 65 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 9 - (Claim 66)

Dependent claim 66 is patentable for at least the reasons intervening claim 65 and independent claim 49 are patentable. In addition, dependent claim 66 recites activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

In the rejection of claim 66, the Examiner cited Dolin, Jr. et al. as disclosing activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.⁶⁶ Notably, the Examiner failed to provide any rational reason why one

⁶⁶ Final Office Action mailed August 12, 2008, item 4 on page 8.

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of ordinary skill in the art would have modified the disclosure of Mulcahy et al. to include such a feature.

In addition, one of ordinary skill in the art would not have found it obvious to modify the disclosure of Mulcahy et al. to include activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location at least because, in Mulcahy et al., the line is already active and services are already provisioned for the subscriber.

The applied references fail to teach or suggest each and every element of independent claim 49 as well as elements recited in claim 66. For at least these reasons, the rejection of claim 66 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 10 - (Claim 63)

Appellant's independent claim 63 is directed to a method for correlating a subscriber unit in a point-to-multipoint network with a geographic location, the method comprising prompting an installer to manually input a location code associated with a human subscriber into the subscriber unit, the location code permitting identification of a geographic location of the human subscriber, wherein the subscriber unit is located at the geographic location of the human subscriber, receiving the location code in the subscriber unit, transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network, and correlating the subscriber unit with the geographic location based on the location code and the subscriber unit identifier.

As discussed above with respect to claim 1, Mulcahy et al. fails to disclose the combination of a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier, and the system described in Mulcahy et al. has no purpose for both a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier. In addition, no prior art reference, including Dolin, Jr. et al. and the other prior art of record, would provide one of ordinary skill in the art with any apparent reason to modify the Mulcahy et al. system to include transmitting both the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network as recited by

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claim 63. Indeed, one of ordinary skill in the art would consciously avoid such a modification because it would be meaningless in the point-to-point network disclosed by Mulcahy et al.

Likewise, Mulcahy et al. and Dolin, Jr. et al. fail to suggest transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network, and correlating the subscriber unit with the geographic location based on the location code and the subscriber unit identifier. Instead, correlating a subscriber unit with a geographic location as recited in claim 63 is not necessary or useful in the telephone networks described by Mulcahy et al. because the telephone lines are already associated with subscribers.

For these reasons, the Mulcahy et al. and Dolin, Jr. et al. references, whether taken alone or in combination, do not support a *prima facie* case of obviousness under 35 U.S.C. § 103 with respect to claim 63. For these reasons, the rejection of claim 63 is improper and should be reversed.

GROUP 11 - (Claim 67)

Dependent claim 67 is patentable for at least the reasons independent claim 63 is patentable. In addition, dependent claim 67 recites activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

In the rejection of claim 67, the Examiner cited Dolin, Jr. et al. as disclosing activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.⁶⁷ Notably, the Examiner failed to provide any rational reason one of ordinary skill in the art would have modified the disclosure of Mulcahy et al. to include such a feature.

In addition, one of ordinary skill in the art would not have found it obvious to modify the disclosure of Mulcahy et al. to include activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location at least because, in Mulcahy et al., the line is already active and services are already provisioned for the subscriber.

⁶⁷ Final Office Action mailed August 12, 2008, item 4 on pages 8-9.

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The applied references fail to teach or suggest each and every element of independent claim 63 as well as elements recited in claim 67. For at least these reasons, the rejection of claim 67 under 35 U.S.C. § 103 is improper and should be reversed.

GROUP 12 - (Claim 68)

Appellant's independent claim 68 is directed to a point-to-multipoint network. The point-to-multipoint network comprises a remote device, a first line connected to the remote device, a passive splitter connected to the first line opposite the remote device, a plurality of additional lines connected to the passive splitter opposite to the first line, and a plurality of subscriber units, each of the subscriber units connected to one of the additional lines opposite to the passive splitter. Each one of the subscriber units sends a subscriber unit identifier associated with the one of the subscriber units and a location code associated with a subscriber using the one of the subscriber units to the remote device via one of the set of additional lines, the passive splitter and the first line. The location code permits identification of a geographic location of the subscriber using the one of the subscriber units. The remote device receives the subscriber unit identifiers and the location codes received from the subscriber units, and correlates the one of the subscriber units with the geographic location of the subscriber using the subscriber unit identifier and the location code received from the respective one of the subscriber units.

As discussed above with respect to claim 1, Mulcahy et al. fails to disclose the combination of a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier, and the system described in Mulcahy et al. has no purpose for both a location code that permits identification of a geographic location of a subscriber and a subscriber unit identifier. In addition, no prior art reference, including Dolin, Jr. et al. and the other prior art of record, would have provided one of ordinary skill in the art with any apparent reason to modify the Mulcahy et al. system to include subscriber units that send a subscriber unit identifier and a location code associated with a subscriber using the e subscriber unit to the remote device via one of the set of additional lines, the passive splitter and the first line as recited by claim 68. Indeed, one of ordinary skill in the art would consciously avoid such a modification because it would be meaningless in the point-to-point network disclosed by Mulcahy et al.

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Likewise, Mulcahy et al. and Dolin, Jr. et al. fail to suggest a remote device that receives the subscriber unit identifiers and the location codes received from the subscriber units, and correlates the one of the subscriber units with the geographic location of the subscriber using the subscriber unit identifier and the location code received from the respective one of the subscriber units. Instead, correlating a subscriber unit with a geographic location is not necessary or useful in the telephone networks described by Mulcahy et al. because the telephone lines are already associated with subscribers.

In addition, claim 68 recites passive splitters. In the rejection of claim 68, the Examiner failed to account for this feature. Appellant notes that passive splitters are unique to point-to-multipoint networks and would serve no purpose in the point-to-point network disclosed by Mulcahy et al.

For these reasons, the Mulcahy et al. and Dolin, Jr. et al. references, whether taken alone or in combination, do not support a *prima facie* case of obviousness under 35 U.S.C. § 103 with respect to claim 68. For these reasons, the rejection of claim 68 is improper and should be reversed.

GROUP 13 - (Claim 69)

Dependent claim 69 is patentable for at least the reasons independent claim 68 is patentable. In addition, dependent claim 69 specifies that the remote device activates subscriber services provisioned for the subscriber using the respective one of the subscriber units after the correlation of the respective one of the subscriber units with the geographic location of the subscriber.

In the rejection of claim 69, the Examiner cited Dolin, Jr. et al. as disclosing activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.⁶⁸ Notably, the Examiner failed to provide any rational reason one of ordinary skill in the art would have modified the disclosure of Mulcahy et al. to include such a feature.

In addition, one of ordinary skill in the art would not have found it obvious to modify the disclosure of Mulcahy et al. to include a remote device that activates subscriber services

⁶⁸ Final Office Action mailed August 12, 2008, item 4 on page 11.

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provisioned for the subscriber using the respective one of the subscriber units after the correlation of the respective one of the subscriber units with the geographic location of the subscriber.

The applied references fail to teach or suggest each and every element of independent claim 68 as well as elements recited in claim 69. For at least these reasons, the rejection of claim 69 under 35 U.S.C. § 103 is improper and should be reversed.

THIRD GROUND OF REJECTION UNDER APPEAL

GROUP 14 - (Claim 3)

In the Office Action, the Examiner rejected claim 3 under 35 U.S.C. § 103(a) as being obvious over Mulcahy et al. in view of Dolin, Jr. et al., and further in view of Kennedy et al. Appellant respectfully traverses the rejection. The cited references fail to teach each and every feature of the claimed invention. In addition, the Examiner has failed to identify a logical reason why a person of ordinary skill in the art would have been led to make a modification or combination to arrive at the claimed invention as required to properly maintain the rejection under 35 U.S.C. § 103(a).

Claim 3 is dependent on independent claim 1. As discussed with respect to Group 3 above, Mulcahy et al. in view of Dolin, Jr. et al. fails support a *prima facie* case of obviousness under 35 U.S.C. § 103 of claim 1. For example, Mulcahy et al. fails to disclose a subscriber unit identifier, and the point-to-point system described in Mulcahy et al. has no purpose for a subscriber unit identifier. As another example, correlation between a subscriber unit and a geographic location as recited in claim 1 is not necessary or useful in the telephone networks described by Mulcahy et al. because the telephone lines are already active and associated with subscribers. In this manner, Mulcahy et al. and Dolin, Jr. et al. fail to suggest storing the subscriber unit identifier in the central repository to correlate the subscriber unit with a geographic location, as set forth in claim 1.

In the rejection of claim 3, the Examiner has not asserted that Kennedy et al. discloses or suggests either transmitting a location code and a subscriber unit identifier via a network to a central repository, or storing the subscriber unit identifier in the central repository to correlate the

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subscriber unit with a geographic location. Indeed, Appellant finds no disclosure regarding such features in Kennedy et al.

In this manner, Kennedy et al. fails to overcome the deficiencies of Mulcahy et al. in view of Dolin, Jr. et al. with respect to claim 1. Claim 3 is patentable for at least the reasons claim 1 is patentable, and the references fail to support a rejection of claim 3 under 35 U.S.C. § 103. For these reasons, the rejection of claim 3 is improper and should be reversed.

CONCLUSION OF ARGUMENT

All claims in this application are in condition for allowance. In view of Appellant's arguments, the final rejections of claims 1-3, 37, 39-41, 43, 44 and 47-55 and 62-69 are improper and should be reversed, and all of the pending claims should be allowed. Appellant respectfully requests separate review by the Board for each of the groups addressed above under separate headings.

Date:

2-12-2009

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CLAIMS APPENDIX

1. A method for correlating a subscriber unit in a point-to-multipoint network with a geographic location, the method comprising:
 - prompting an installer to manually input a location code associated with a subscriber, the location code permitting identification of a geographic location of the subscriber;
 - receiving the location code in the subscriber unit;
 - transmitting the location code and a subscriber unit identifier via the network from the subscriber unit to a central repository; and
 - storing the location code and the subscriber unit identifier in the central repository to correlate the subscriber unit with the geographic location.
2. The method of claim 1 further comprising:
 - checking the location code for errors;
 - upon finding an error, transmitting an instruction to the subscriber unit to indicate the error to the installer; and
 - upon finding no errors, correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier.
3. The method of claim 2 further comprising prompting the installer to reinput the location code upon finding an error.
37. The method of claim 1, wherein the location code permits identification of network service parameters associated with the subscriber unit.

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39. The method of claim 1, further comprising receiving the location code by manual entry of the location code into the subscriber unit by a technician.
40. The method of claim 39, further comprising prompting a technician to manually enter the location code into the subscriber unit.
41. The method of claim 39, further comprising receiving the location code via a butt set device coupled to the subscriber unit.
43. The method of claim 1, wherein the subscriber unit is equipped to receive information including voice, video and data content.
44. The method of claim 1, further comprising:
checking the location code for errors; and
upon detection of an error in the location code, transmitting an indication of the error to the subscriber unit via the network.
47. The method of claim 1, wherein the subscriber unit identifier includes a serial number.
48. The method of claim 1, further comprising correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier.

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49. A method comprising:

receiving a location code associated with a subscriber in a subscriber unit in a point-to-multipoint network, wherein the location code permits identification of a geographic location of the subscriber; and

transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device for correlation of the subscriber unit with the geographic location.

50. The method of claim 49, further comprising receiving the location code by manual entry of the location code into the subscriber unit by a technician.

51. The method of claim 49, further comprising prompting a technician to manually enter the location code into the subscriber unit.

52. The method of claim 51, further comprising receiving the location code via a butt set device coupled to the subscriber unit.

53. The method of claim 49, further comprising receiving information packets including voice data for delivery of telephone services to the subscriber.

54. The method of claim 49, further comprising receiving information packets including voice, video and data content.

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55. The method of claim 49, further comprising:
- checking the location code for errors; and
 - upon detection of an error in the location code, transmitting an indication of the error to the subscriber unit via the network.
62. The method of claim 1, wherein the subscriber unit is located at the geographic location of the subscriber.
63. A method for correlating a subscriber unit in a point-to-multipoint network with a geographic location, the method comprising:
- prompting an installer to manually input a location code associated with a human subscriber into the subscriber unit, the location code permitting identification of a geographic location of the human subscriber, wherein the subscriber unit is located at the geographic location of the human subscriber;
 - receiving the location code in the subscriber unit;
 - transmitting the location code and a subscriber unit identifier from the subscriber unit to a remote device via the network; and
 - correlating the subscriber unit with the geographic location based on the location code and the subscriber unit identifier.
64. The method of claim 1, further comprising activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

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65. The method of claim 49, further comprising correlating the subscriber unit with the geographic location using the location code and the subscriber unit identifier.

66. The method of claim 65, further comprising activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

67. The method of claim 63, further comprising activating subscriber services provisioned for the subscriber after the correlation of the subscriber unit with the geographic location.

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68. A point-to-multipoint network comprising:

a remote device;

a first line connected to the remote device;

a passive splitter connected to the first line opposite the remote device;

a plurality of additional lines connected to the passive splitter opposite to the first line;

and

a plurality of subscriber units, each of the subscriber units connected to one of the additional lines opposite to the passive splitter,

wherein each one of the subscriber units sends a subscriber unit identifier associated with the one of the subscriber units and a location code associated with a subscriber using the one of the subscriber units to the remote device via one of the set of additional lines, the passive splitter and the first line,

wherein the location code permits identification of a geographic location of the subscriber using the one of the subscriber units,

wherein the remote device receives the subscriber unit identifiers and the location codes received from the subscriber units, and correlates the one of the subscriber units with the geographic location of the subscriber using the subscriber unit identifier and the location code received from the respective one of the subscriber units.

69. The point-to-multipoint network of claim 68, wherein the remote device activates subscriber services provisioned for the subscriber using the respective one of the subscriber units after the correlation of the respective one of the subscriber units with the geographic location of the subscriber.

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EVIDENCE APPENDIX

NONE

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RELATED PROCEEDINGS APPENDIX

No decision has been rendered by a court or the Board in the currently-pending appeal regarding United States Patent Application Number 11/065,323.